Metadata form FINAL 8/7/98

Data Used in the Clean Water Action Plan Unified Watershed Assessment

Name of Data Layer: **Anadromous and Semi-anadromous Fish Index**

Definition (General Description): Anadromous and semi-anadromous fish were examined for all systems sampled under the Resource Assessment Service, Index of Biotic Integrity sampling program. An index was developed based on the mean catch per unit effort (CPUE) of anadromous and semi-anadromous species combined. Species included in the analysis are defined as follows: Anadromous Species included are American shad, Alewife, Blueback herring, Hickory shad, and Striped bass; Semi-anadromous species included are White perch and Yellow perch.

Data Source: Maryland Department of Natural Resources Resource Assessment Service, Index of Biotic Integrity sampling program

Data Type: Condition _X_ Stressor ____ Vulnerability ____ Trend ____ Growth ____
Other_____

Method of Calculation: The calculations were derived as follows. The CPUE was calculated for every site on a yearly basis. The CPUE was then ranked into five groupings. The mean rank for each river was calculated. These ranks were then multiplied by two to adjust them to a scale ranging from 1 to 10. This index can serve as a fair measure of the value of juvenile anadromous/semi-anadromous fish habitat for each river system.

For the UWA, watersheds are placed in Category I (needs restoration) if they are in the lower 25% of scores for the applicable watersheds for the Anadromous and Semi-anadromous Fish Index. Watersheds are placed in Category II (needs preventative action) if they have scores in the middle 26-74% of scores for the applicable watersheds. Watersheds are placed in Category III (pristine watersheds) if they have scores in the highest 25% of scores for applicable watersheds.

Watershed Scale: Tributary Strategy Region[1] ____ USGS 8 Digit ____ MD 6 Digit ____
MD 8 Digit _X_ MD 12 Digit ____ Adaptable to Any Scale ____Other_____

Data Custodian: Tidewater Ecosystem Assessments/RAS/DNR

Clean Water Goal: Yes ____ No _X_
If Yes: Description of Goal _____

Other Natural Resource Goal: Yes ___ No _X_
If Yes: Benchmark Goal ___ Relative Goal ___

[1]The Youghiogeny watershed and the Coastal Bays region are considered to be Tributary Strategy Regions for the purposes of this program

If Benchmark Goal - Description of Benchmark _____

Assumptions _____
_____

Comments: Please note that both the IBI index and this index are derived from fish information that is collected with gear that is biased toward juvenile fish communities. Data on adult populations would be a valuable addition to these analysis, as it would allow assessment of the river in terms of the entire fish population. With more time, we could explore data sets (creel census data, fishing reports, landings data, etc.) that may be applicable to this type of exercise.

References: see "Methods used for Tidal Water Quality, SAV, Benthic IBI and Fish IBI data consolidation for the INRA/UWA project" for more information.